Remarks

Claims 34 - 68 are pending. Favorable reconsideration is respectfully solicited.

Applicants note the allowance of claims 44 - 46, 53, 58, and 65 - 67. Claims 37, 40 and 42 have been objected to, but have been indicated as allowable if rewritten to be in independent form, including all limitations of the base claim and any intervening claims. This has been done, and thus these claims should be allowable as well. It is noted that claim 37 as rewritten does not include all the text of subparagraphs a), a)i), and a)ii), since specific polymers a) are being claimed, and incorporation of the corresponding text from claim 34 would have been redundant.

Claim 34 has been amended to recite that the redispersible polymers are prepared from monomers a)i) which "consist of" the monomers there listed. The Examiner's attention is also directed to new claim 68 which is a combination of claims 34 and 39, requiring an alkanolamine functional accelerant which is not in the form of a salt.

Claims 34 - 36, 38, 39, 41, 47, 49 - 52, 54 - 57 and 59 - 64 have been rejected under 35 U.S.C. § 103(a) as unpatentable over Colombet et al. U.S. 5,922,796; ("*Colombet*"); Pakusch et al. U.S. 6,028,167 ("*Pakusch*") or Dreher et al. 6,716,922 ("*Dreher*"), in view of Thames et al. 6,001,913 ("*Thames*") or Ball et al. 6,063,865 ("*Ball*"). Applicants respectfully traverse this rejection.

First, *Colombet* is directed to redispersible polymer powders which contain, in addition to water insoluble polymer particles (the polymer to be redispersed), a soluble polycarboxylic acid polymer and a non-ionic surfactant as a redispersing aid. *Colombet* was discussed in Applicant's response of July 24, 2006, the relevant portions of which are repeated in the two paragraphs below.

Colombet discloses redispersible polymer powders which are stabilized by a mixture of surfactants comprising non-ionic polyoxyalkylene compounds and water soluble polyacid electrolytes. *Colombet* discloses no protective colloids; rather the dispersions of *Colombet* are stabilized by non-ionic surfactants. Thus, for this reason alone, *Colombet* does not teach or suggest the claimed invention, which requires protective colloids. Rather, *Colombet* disparages the prior art polymers which contain protective colloids. *See*, col. 1, ll. 27-31, thus teaching away from the use of protective colloids, and employing surfactants instead.

Moreover, *Colombet* discloses no setting accelerant as claimed. The polyoxyethylated surfactants derived from fatty amines (col. 3, l. 65) do not contain ethanolamine groups. The smallest number of repeating ethoxy groups is 2, and thus the smallest surfactant contains, not ethanolamine groups, but hydroxyethyloxyethylamine groups. The fatty amine surfactants serve to keep the polymer in dispersion as it is formed and to render it later redispersible, and are but one type of many surfactants disclosed by *Colombet* for this purpose.

Colombet thus teaches away from the present invention, which requires a protective colloid.[1] Furthermore, as noted in the Declaration of Dr. Hans-Peter Weitzel, the polycarboxylic acids employed by *Colombet* which are a necessary part of his invention, are retardants for hydraulically setting cementitious compositions, and therefore one desirous of accelerating setting would not be motivated to employ a *Colombet*-type composition. The rejections of the claims over *Colombet* in view of *Thames* or *Ball* must be withdrawn for this reason alone.

---

[1] The Office states that *Colombet* discloses use of a protective colloid at column 5, lines 45 - 47. Applicants fail to find any such teaching, which would be directly contrary to the purpose of *Colombet*. The citation referred to by the Office pertains to the polycarboxylic acid polyelectrolytes, not to protective colloids. Soluble polycarboxylic acid polymers are not protective colloids, and have never been considered to be, protective colloids.

Dreher, like *Colombet*, also requires a considerable amount of a water soluble polymer (A2) which is a polycarboxylic acid polymer, indicated by Dr. Weitzel, who has had many years of experience in the art, to be a retardant, not an accelerant. Thus, one skilled in the art would not look to *Dreher* for any solution to accelerating cement curing. Withdrawal of the rejection of the claims over *Dreher* in view of *Thames* or *Ball* is solicited for this reason.

Moreover, the alkanolamine employed by *Dreher* is an elevated temperature crosslinker which reacts with carboxylic acid groups of *Dreher's* soluble polycarboxylic acid polymers to form polyester linkages, a reaction which has been disclosed many years ago for the binding of glass fibers in fiberglass insulating batts in lieu of the conventional phenol/formaldehyde condensates. *Ball*, on the other hand, teaches crosslinkable powder compositions which require functional groups which react with a crosslinker which may have, for example, amino or hydrazido functionality. The functional groups required in the polymer are aldehyde, keto, epoxy, isocyanate, anhydride, or aziridine. Claim 1 of the present application limits the copolymers to monomers which do not include the reactive functionalities of *Ball*. *Ball* is incompatible with *Dreher*, because while *Dreher* requires alkanolamine crosslinkers, *Ball* specifically limits his crosslinking groups to aldehyde, keto, epoxy, isocyanate, anhydride, or aziridine. Thus these references contain incompatible teachings.

Finally, since the polymers of *Ball* must contain the aforementioned groups while Applicant's polymers cannot (*See* a), a)ii), and a)iii) of claim 34, for example), any combination of *Dreher* with *Ball*, even disregarding their disparate teachings, cannot render the claimed invention obvious.[2]

The object of *Thames* was to provide odorless and organic solvent-free latex or emulsion compositions having plasticizing and cross-linkable properties, for use in paints, inks, etc. (*Thames*, col. 2, lines 25 - 29). These objects of *Thames* are achieved by use of compositions which include a metallic drier which is preferably a metal salt of a fatty acid, together with a copolymer of an ester of an ethylenically unsaturated carboxylic acid and an long chain alkenol, i.e.. an aliphatically unsaturated alcohol such as 1-octenol; for example 1-octenolacrylate. *See Thames* at col. 3, lines 5 - 11; col. 8, line 35 - column 9, line 27; and claim 1. The long-chain alkenol units cause internal plasticization and also allow crosslinking (col. 2, lines 5 - 11; col. 3, lines 49 - 54; col. 3, lines 8 - 11). The requirement of the drier is noted, and sets these compositions apart from compositions such as Applicants; driers assist in crosslinking through double bonds present in the polymer (from the alkenol groups). Such driers are commonly added to oil paints, for example, to crosslink the unsaturated oils present.

---

[2] These arguments further apply to the combination of *Colombet* and *Ball* as well but have not been repeated for the sake of brevity.

The monomers of the claims do not allow for inclusion of alkenol groups derived from alkenol esters of (meth)acrylates. Rather, all the (meth)acrylate monomers of the claims are esters of saturated alcohols. The use of alkenol (meth)acrylate esters is a salient feature of *Thames*, and any combination of *Thames* with any other reference (*Pakusch, Dreher, Colombet*) must, of necessity, retain this feature. *See, e.g. In re Wesslau* 147 USPQ 391, 393 (CCPA 1965). However, the claims exclude such monomers and polymers prepared therefrom. Thus, the combination of *Thames* with any of the principle references (*Pakusch, Dreher, Colombet*) cannot render the claimed invention obvious.

The comments above with respect to *Pakusch*, *Dreher,* and *Colombet* are directed to the references themselves and also their combination with *Thames* or *Ball*. Likewise, the comments directed to *Thames* and *Ball* apply as well to their proposed combination with *Pakusch, Dreher,* or *Colombet*. Applicant believes they have thus addressed all rejections of record, and that the claims patentably distinguish over the references, whether alone or in combination.[3]

---

[3] Again, for brevity, Applicant has not discussed the issues of whether the references are analogous references, and whether there is evidence of motivation to combine the references. The arguments presented above are believed to patentably distinguish over the references.

Applicant submits that the claims are now in condition for Allowance, and respectfully request a Notice to that effect. If the Examiner believes that further discussion will advance the prosecution of the Application, the Examiner is highly encouraged to telephone Applicant's attorney at the number given below.

Respectfully submitted,

Hans-Peter Weitzel

By
William G. Conger
Reg. No. 31,209
Attorney/Agent for Applicant

Date: May 24, 2007

BROOKS KUSHMAN P.C.
1000 Town Center, 22nd Floor
Southfield, MI 48075-1238
Phone: 248-358-4400
Fax: 248-358-3351

Attachment: Declaration